



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
& ENVIRONMENTAL CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT

AIR QUALITY MANAGEMENT  
SECTION

Blue Hen Corporate Center  
655 S. Bay Road, Suite 5 N  
Dover, Delaware 19901

TELEPHONE: (302) 739 - 9402  
FAX No.: (302) 739 - 3106

September 7, 2011

**Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)**  
**Fluid Coker Unit, FCU Carbon Monoxide Boiler,**  
**Wet Gas Scrubber, and Selective Non-Catalytic Reduction System**

Delaware City Refining Company  
Delaware City Refinery  
4550 Wrangle Hill Rd.  
Delaware City, DE 19706

ATTENTION: Herman Seedorf  
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 DE Admin. Code 1102, Section 2 and 1125, approval of the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the operation of a Belco Pre-scrubber, an amine-based Cansolv Regenerative Wet Gas Scrubber (WGS) with caustic polisher installed downstream of the Fluid Coking Unit (FCU) Carbon Monoxide Boiler (COB) and a GE Selective Non Catalytic Reduction (SNCR) System in the FCU COB at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware, in accordance with the following documents:

- Application submitted on Form No. AQM-4 dated February 15, 2004 signed by Franklin R. Wheeler;
- Letter dated March 17, 2004 addressed to Secretary John Hughes and signed jointly by Franklin R. Wheeler for Motiva Enterprises (Motiva) and Bruce Jones for The Premcor Refining Group, Inc. (Premcor) requesting transfer of all Motiva's permits to Premcor;
- Letter dated April 23, 2004 addressed to Franklin Wheeler of Motiva Enterprises, LLC and Bruce Jones of The Premcor Refining Group, Inc. and signed by Secretary John Hughes; and
- Consent Decrees, including all addenda thereto, lodged with the United States Court for the Southern District of Texas in Civil Action No. H-01-0978, to the extent applicable to the Delaware City Refinery (Consent Decree);

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- Secretary's Order No. 2004-A-0058 issued November 30, 2004.
- Secretary's Order No. 2005-A-0030 issued June 2, 2005.
- Secretary's Order No. 2008-A-0025 issued June 4, 2008.
- Agreement Governing the Acquisition and Operation of Delaware City Refinery dated May 31, 2010 between the Department of Natural Resources and Environmental Control and Delaware City Refining Company.
- Letter dated December 9, 2010 addressed to Heather Chelpaty and signed by secretary Collin O'Mara authorizing the transfer of DNREC Authorizations and Environmental Permits from Premcor to Delaware City Refining Company.
- Electronic mail addressed to Ravi Rangan from Robert Muche dated 08.22.2011.

This permit is issued subject to the following conditions:

**1. General Provisions**

- 1.1 This permit expires five years from the date of issuance.
- 1.2 Representatives of the Department may, at any reasonable time, inspect this facility.
- 1.3 This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:
  - 1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and
  - 1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

- 1.4 The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the *Regulations*.
- 1.5 The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) by September 07,

2012. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

## 2. Emission Limitations

2.1 Air contaminant emission levels from the FCU WGS shall not exceed those specified in the *Regulations* and the following<sup>1</sup>:

### 2.1.1 Volatile Organic Compound (VOC) Emissions

2.1.1.1 Non-methane Hydrocarbon Emissions: 0.14 lb/mmDSCF of stack gas and 8.2 TPY.

2.1.1.2 The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.

### 2.1.2 Nitrogen Oxide (NO<sub>x</sub>) Emissions

2.1.2.1 NO<sub>x</sub> emissions shall not exceed 152 ppmvd @ 0 % oxygen on a 30-day rolling average basis.

2.1.2.2 Reserved.

### 2.1.3 Particulate Matter

2.1.3.1 H<sub>2</sub>SO<sub>4</sub>: 67.5 lb/hour and 295.7 TPY;

2.1.3.2 TSP: 60.9 lb/hour and 266.8 TPY;

2.1.3.3 PM<sub>10</sub> emissions (including TSP and H<sub>2</sub>SO<sub>4</sub>): 128.4 lb/hour and 562.4 TPY.

### 2.1.4 Sulfur Dioxide (SO<sub>2</sub>) Emissions

SO<sub>2</sub> emissions shall not exceed 25 ppmvd @ 0% O<sub>2</sub> on a rolling 365 day average, 50 ppmvd @ 0% O<sub>2</sub> on a rolling 7 day average, and 182.3 TPY;

<sup>1</sup> Tons per year (TPY) is defined as "tons per rolling twelve months".

2.1.5 Carbon Monoxide (CO) Emissions

2.1.5.1 CO: 500 ppmvd @ 0% O<sub>2</sub> on an hourly average, 200 ppmvd @ 0% O<sub>2</sub> on a rolling 365-day average, and 694.4 TPY.

2.1.5.2 Reserved.

2.1.5.3 The Company shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCU COB.

2.1.6 Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) Emissions

H<sub>2</sub>SO<sub>4</sub> emissions shall meet one of the following standards:

2.1.6.1 H<sub>2</sub>SO<sub>4</sub> emissions shall be reduced by at least 40% across the wet gas scrubber system; or

2.1.6.2 The outlet concentration of H<sub>2</sub>SO<sub>4</sub>/SO<sub>3</sub> from the stack shall be no greater than 10 ppmvd.

2.1.7 Ammonia (NH<sub>3</sub>) Emissions

NH<sub>3</sub>: 2.3 lb/hour and 10.2 TPY;

2.1.8 Lead (Pb) Emissions

Pb: 4.37 E-04 pounds per thousand pounds of coke burned and 0.12 TPY;

2.1.9 Hazardous Air Pollutant (Ni HAP) Emissions

Ni: 0.001 pounds per 1,000 pounds of coke burned and 0.27 TPY.

2.2 The opacity from the FCU WGS stack or the back up incinerator stack, when it is operating, shall not be greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period.

2.3 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

2.4 The emission limitations in Conditions 2.1 shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The emission limitations shall

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apply to each planned start up or shut down event after the expiration of the 116 hour period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hours from feed out of the FCU. In lieu of the emission limitations in Condition 2.1, the following emission limitations shall apply during planned start ups and shut downs of the FCU:

2.4.1	VOC	1.6 lbs/hr
2.4.2	NO <sub>x</sub>	Reserved
2.4.3	H <sub>2</sub> SO <sub>4</sub>	58 lbs/hr
2.4.4	TSP	47.1 lbs/hr
2.4.5	PM <sub>10</sub>	133.3 lbs/hr
2.4.6	SO <sub>2</sub>	95 lbs/hr
2.4.7	CO	415 lbs/hr
2.4.8	Ammonia	2 lbs/hr

Compliance with these emission limitations in Condition 2.4 shall be determined based on engineering calculations.

- 2.5. During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Company, at a minimum, must initiate a reduction in the feed rate to the FCU and achieve the following operational limits and emissions rates by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS:

**Implementation of Turndown Matrix**

FCU Feed Rate (KBD)	FCU Feed Wt.% S	SO <sub>2</sub> Emissions (lb/hr)
31.5	6.0	4441.5
31.5	5.5	4071.4
31.5	5.0	3701.3
31.5	4.5	3331.1
31.5	4.0	2961.0

**3. Operational Limitations**

- 3.1 The owner or operator shall comply with the following operational limits:

- 3.1.1 The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Company determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any "modification" to the FCU, as such term is defined in State of Delaware

*Regulations, 7 DE Admin. Code 1101*, then the Company shall submit a notification to the Department in advance of achieving a throughput in excess of the level identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Company may operate the FCU at the throughput value addressed in the notification made under this Condition.

- 3.2 With the exception of the FCU burner Offgas, the Company shall not burn any fuel that contains hydrogen sulfide ( $H_2S$ ) in excess of 0.10 gr/dscf (162 ppm).
- 3.3 The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating.
- 3.4 During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a planned shut down of the FCU, the FCU COB or the WGS, the Company shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the FCU prior to commencing shut down of the FCU COB and/or the WGS.
- 3.5 This Permit does not authorize emissions exceeding the limits set forth in Condition 2 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Company shall bear the burden of demonstrating to the Department's satisfaction that the Company's continued operation of the FCU should not subject the Company to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware *Regulations*. Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Company's response to, the unplanned shutdown; 2) whether the Company has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Company has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Company has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns

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and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.

3.5.1 Should the Company operate the backup incinerator, the Company shall abide by the following:

3.5.1.1 Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 second; and

3.5.1.2 Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("*dscf*") shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O<sub>2</sub> and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.

3.6 There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system.

3.7 During process unit turnarounds the Company shall provide for the following:

3.7.1 Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox.

3.7.2 No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.

3.8

3.8.1 At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.8.2 All structural and mechanical components shall be maintained in proper operating condition.

3.9 HAP emissions from the FCU shall be controlled to meet the MACT I compliance requirements for miscellaneous process vents in accordance with 40 CFR 63.643 (b).

**4. Compliance Methodology**

4.1 Compliance with Conditions 2.1.3 and 2.1.6 through 2.1.9 shall be based on stack testing to be conducted in accordance with Section 6 of this permit. The Company

shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17, section 2.3.

- 4.2 Compliance with Condition 2.1.1.1 shall be based on stack testing to be conducted in accordance with Condition 5.2. The Company shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17, section 2.3.
- 4.3 Compliance with Condition 2.1.1.2 for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177.
- 4.4 Compliance with Conditions 2.1.2, 2.1.4, 2.1.5 and 3.2 shall be based on continuous monitoring systems.
- 4.5 Compliance with Conditions 2.2, 3.1, 3.3, 3.4 and 3.5.1 shall be based on the monitoring/testing and recordkeeping requirements.
- 4.6 Compliance with Condition 3.6 and 3.7 shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. These actions shall be documented and maintained in accordance with Condition 6.1.
- 4.7 Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.
- 4.8 Compliance with Condition 3.8 shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## **5. Testing and Monitoring Requirements**

- 5.1 Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after construction authorized by this permit is completed, the Company shall conduct performance tests for the pollutants listed in Conditions 2.1.3 (PM<sub>10</sub>), 2.1.6 (H<sub>2</sub>SO<sub>4</sub>), 2.1.8 (Pb), and 2.1.9 (HAPS).
- 5.2 The Company shall conduct performance testing for VOCs according to the following provisions:
  - 5.2.1 The Company shall conduct additional performance tests for VOCs every three years. The Company may petition the Department to decrease the



frequency of VOC performance tests based on the results of any performance testing.

- 5.2.2. Each performance test conducted pursuant to Condition 6.2 shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60, and shall determine and report results as total hydrocarbons.

- 5.3 Within 90 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

- 5.3.1 One original and 2 copies of the test protocol including a "Source Sampling Guidelines and Preliminary Survey Form" shall be submitted a minimum of 30 days in advance of the tentative test date to the address in Condition 5.3.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

- 5.3.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

- 5.3.3 The final results of the testing shall be submitted to the Department within 90 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and One Copy to:

Engineering & Compliance Branch  
Attn: Assigned Engineer  
156 South State Street  
Dover, DE 19901

One Copy to:

Air Surveillance Branch  
Attn: Program Manager  
715 Grantham Lane  
New Castle, DE 19720

- 5.3.4 To be considered valid, the final results report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety and Environment Department.
- 5.3.5 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s).

Failure to demonstrate compliance through the test may result in enforcement action.

- 5.4 The QA/QC procedures for the SO<sub>2</sub> CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR Part 60.
- 5.5 The QA/QC procedures for the NO<sub>x</sub> CEMS shall be established in accordance with the procedures in Appendix B of 40 CFR Part 75 to meet the requirements of the NO<sub>x</sub> Budget Trading Program contained in DNREC Regulation 39 (Nitrogen Oxides Trading Program). If at a future date the FCU COB is no longer an affected source under DNREC Regulation 39, the appropriate procedures governing the QA/QC of the CEMS shall be those set forth in Appendix F of 40 CFR 60.
- 5.6 PM: Compliance with PM emission limits shall be based on performance testing conducted in accordance with Condition 5.1 and annually thereafter, as follows:
  - 5.6.1 H<sub>2</sub>SO<sub>4</sub>: Compliance with Conditions 2.1.3.1 and 2.1.6 shall be based on testing in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department.
  - 5.6.2 TSP: Compliance with Condition 2.1.3.2 shall be based on testing in accordance with Reference Method 5B in Appendix "A" of 40 C.F.R. Part 60, or other testing methodology approved by the Department.
  - 5.6.3 PM<sub>10</sub> (including TSP and H<sub>2</sub>SO<sub>4</sub>): Compliance with Condition 2.1.3.3 shall be based on testing in accordance with Methods 5B/202, or other testing methodology approved by the Department.
  - 5.6.4 PM<sub>2.5</sub>: Compliance with Condition 2.1.3.4 shall be based on testing in accordance with a Department approved protocol.

The Company may petition the Department for less frequent testing if future data shows that testing on an annual basis is unwarranted.

- 5.7 The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60.
- 5.8 Ni/Pb: Compliance shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. The Company shall conduct additional performance testing in accordance with this condition every three years, unless the Department approves less frequent testing.
- 5.9 The Company shall continuously monitor the temperature of the FCU COB firebox.
- 5.10 The Company shall monitor the FCU throughput and coke burn rates.
- 5.11 The Company shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCU WGS stack, when it is operating, shall not be greater than 20% for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24

hour period (required in Section 2.2) shall be based upon the following parametric monitoring:

- 5.11.1 The minimum delta-P across the Agglo-Filtering modules and Cyclolab Droplet Separators shall be 6 inches of water column, evaluated on a one minute average basis; and
- 5.11.2 A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of:
  - 5.11.2.1 115 psig, or
  - 5.11.2.2 The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition 5.6.3, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 2.2 using EPA Method 9.
- 5.11.3 Notwithstanding Condition 5.11.2, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 5.11.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Company may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Condition 2.2 at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 5.11.1 to evaluate compliance with Condition 2.2.

## **6. Record Keeping Requirements**

- 6.1 The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for five (5) years and shall make these records available to the Department upon written or verbal request. These records shall include:
  - 6.1.1 CEMS data;
  - 6.1.2 Calibration and audit results;
  - 6.1.3 Stack test results;
  - 6.1.4 The daily COB fuel usage;
  - 6.1.5 The coke burn rate and FCU throughput, both on a rolling twelve month average basis;
  - 6.1.6 COB firebox temperature;

- 6.1.7 Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternative plan;
  - 6.1.8 Date of every process unit or vessel turnaround;
  - 6.1.9 Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere;
  - 6.1.10 VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service;
  - 6.1.11 Bypass stack SO<sub>2</sub> emissions as calculated according to Condition 3.5; and
  - 6.1.12 Backup incinerator operating hours, furnace temperature, percent O<sub>2</sub>, and opacity.
- 6.2 The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 2.1.

## **7. Reporting Requirements**

- 7.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:
- 7.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or the environment.
  - 7.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department at its sole discretion.
- 7.2 In addition to complying with Condition 6.1 of this permit, the Company shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:
- 7.2.1 The name and location of the facility;
  - 7.2.2 The subject sources that caused the emissions;
  - 7.2.3 The time and date of the first observation of the excess emissions;
  - 7.2.4 The cause and expected duration of the excess emissions;
  - 7.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission or

operational limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

- 7.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report. The Owner/Operator shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

- 7.3 Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. The required reports shall contain the following information:

- 7.3.1 A summary of all excess emissions for the reporting period;
- 7.3.2 Periods when the firebox temperature fell below 1300°F;
- 7.3.3 Exceedances of the FCU throughput rate identified in Condition 3.1;
- 7.3.4 A summary of all periods when the FCU WGS has been bypassed;
- 7.3.5 Hourly SO<sub>2</sub> emissions during periods when the was FCU WGS bypassed;
- 7.3.6 The duration and magnitude of all periods of excess opacity;
- 7.3.7 Back up incinerator operating data required pursuant to condition 6.1.12

- 7.4 Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.

- 7.5 Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by January 31, April 30, July 31 and October 31 of each calendar year and shall include a report of excess emissions, quarterly audit results, data capture for the period and details of out of control periods.

- 7.6 One original of all required reports in hard copy format shall be sent to the address below:

Division of Air Quality  
Blue Hen Corporate Center  
655 S. Bay Road, Suite 5 N  
Dover, DE 19901

An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery.

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8. Administrative Conditions

- 8.1 This permit shall be made available on the premises.
- 8.2 This permit authorizes the operation of the equipment authorized to be constructed by Permit: APC-81/0829-CONSTRUCTION (Amendment 8)(PSD-NSR) dated September 8, 2008 and supersedes Permit: APC-81/0829-OPERATION (Amendment 7) dated June 4, 2008.
- 8.3 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,



Paul E. Foster, P.E.  
Program Manager  
Engineering & Compliance Branch

PEF:CRR:slb

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pc: Dover Title V File